

Comment
in Docket No. 98-143

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Federal Communications Commission
Wireless Telecommunications Bureau
1919 M Street, N.W.
Washington, D.C. 20554

August 6, 1998
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Gentlemen:

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: Amateur Service Review

Your desire to simplify the amateur radio service is probably well founded but it can also be improved. First, instead of having 6 license grades, only 3 are needed. These are:

The LOWEST license class, termed "**Class C**", would be for amateurs who are not interested in making long distance (DX) contacts and who have no desire to use what has historically been the basis of all amateur work, the Morse Code ("CW"). This license would allow such people to operate on all VHF and UHF amateur bands (above 30 MHz), using any legal amateur mode including practicing CW or MCW with other amateurs. This license test should cover basic electricity, basic active devices, basic radio circuits, basic radio systems, VHF and UHF antennas, and radio laws pertaining to amateur operations on VHF and UHF bands.

The MIDDLE License class, termed "**Class B**", would be for amateurs who want to operate in the HF range (1.8 MHz to 29.7 MHz, as well as on the VHF and UHF amateur bands, using either CW or any other legal mode. The lowest 25 kHz of all HF bands above 3.5 MHz, which are usually used world-wide for DX CW communicating, would be limited to CW for both class B and class A license holders. The second 25 kHz should be reserved for Class A (see next paragraph) licensed amateurs for higher speed CW work. The next 25 kHz would also be for CW. The next 50 kHz would be for all modes other than forms of radiotelephone. The remainder of all bands would be for CW and radiotelephone only. (CW must be allowed on all amateur frequencies because it requires the least sophisticated equipment for 2-way emergency radio communications) This license test should go deeper into electricity, active devices, radio circuits, radio systems, HF, UHF and VHF antennas, radio laws pertaining to amateur operating on all bands, plus a CW sending and receiving test at 13 words-per-minute (wpm).**

The TOP License class, termed "**Class A**", would be for higher speed CW amateurs. It would only differ from the Class B license in requiring a CW sending and receiving test at 20 wpm. (The more advanced theory test given for the Class B license should include all of the theory required for any mode of HF amateur operations.)

**The suggested 12 wpm test by ARRL is not quite high enough. (ARRL is mostly interested in increasing the number of amateur operators to sell more magazines and other items and attract more advertisers). This writer taught CW and radio licensing professionally, at Community College level, for 27 years besides working as a licensed CW operator aboard ships and in police radio. His 700+ page text, "Electronic Communication", published by McGraw-Hill, includes chapters on "Operating Fundamentals", on "Amateur Radio" and on "Radio Rules and Licenses". He has found that the human mind first tries to learn code reception by memorizing what dots and dashes are in letters being heard. This can be done fairly well up to perhaps 12 wpm. His first amateur test was at 10 wpm and he can remember still counting dots and dashes for some letters. Students take almost as much time to progress from 10 to 13 wpm as they take

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for 0 to 10 wpm. By the time they reach about 13 wpm they no longer hear separate dots and dashes but recognize the letter sounds as specific letters. They have finally learned the code! For anyone not familiar with Morse Code: The letter "S" is sent as dot-dot-dot. A person capable of receiving at 13 wpm hears it as "dididit" and recognizes this sound as the letter "S". Similarly, the letter "F" is sent as dot-dot-dash-dot. The sound of "dididahdit" is instantly recognized as the letter "F". The same is true of all letters, numbers, punctuation and special operating signs used in Morse Code. Back in the 1930s, the FCC recognized that code is learned at 13 wpm so it increased amateur Morse Code speed tests from 10 to 13 wpm. (Just because many foreign countries give 12 wpm tests is no reason why the U.S.A. shouldn't do it properly.)

There is only one way of giving worthwhile code tests — plain language words including some numbers are sent at 13 (or 20) wpm for 4 or 5 minutes. The test should be considered passed if there is one minute during this copy time at 13 (or 20) wpm with at least 65 (or 100) letters copied correctly in succession. The same is true of a 4 or 5 minute sending test — 65 (or 100) letters must be properly sent in succession in one minute. (Any 5 letters plus a space is considered one word.)

The present method of sending for a given time at a required speed and then giving a multiple-guess test on what was transmitted **does not test code receiving ability**. One amateur told me he went in to try for a Novice 5-wpm test but was talked into trying the 20-wpm Extra Class CW test. He was not sure if he really knew 5 wpm or not when he went in, but he passed the 20-wpm multiple-guess test! Of course no sending test was at 20 wpm, which would have proved him unqualified. Sending tests have not been required for years! I am constantly working Extra Class licensed operators who can not send or receive at even 10 wpm. **The method presently being used is a BAD method of testing code ability!** It should be changed.

A 5-wpm code test is of no use except to raise the number of amateurs. This is proven by the 5-wpm tests given Novices in the past, now recognized as being essentially useless. If it is desired that someone know the Morse Code let them be tested at a speed which will show that they are capable of proper operating — that they do know how to send and receive at that speed.

There will have to be a "**Grandfather**" clause regarding present license holders if new license classes are adopted. "Extra" class would become "Class A" — "Advanced" and "General" classes would become "Class B" since these operators have all passed 13-wpm tests — Other class license holders who have not passed a 13-wpm test would become "Class C".

It is hoped that this simplified plan for possible changes on our present Amateur Radio licensing method will be considered favorably.

Respectfully,



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